PLAY METER

UPDATE EDITION

Vol. 5, No. 24 December 31, 1979

Gremlin games attract attention at distributors meet

By Vicki Darlington

Gremlin unveiled its new products to a crowd of about 300 people at the company's first international distributor's meeting held in Chicago's Essex Inn the day before the AMOA show opened.

Two of the games, *Dual* and *Mini-Video*, were of particular note since both featured multiple game capacity.

Dual, currently available in an upright piece, cocktail table or slim-line stand-around, is the "first game available to the operator where the player can select either of two distinctly independent games," Gremlin President Frank Fogleman noted. "The benefits, obviously, are that if a player tires of one game, he can begin playing an alternate game, and also, if one game should malfunction, the other game probably would be operational."

"Another benefit is that operators now are able to place two games in a location for one fee. In some parts of the United States, games are limited in any one location to one, two or three pieces. In Holland, for example, only one amusement machine is allowed per cafe. Now operators can offer two games per location in one cabinet," the executive reported. The game was tested for about six months in Japan, he continued, with a good deal of success.

Dual effectively allows many operators the opportunity to get out of the cabinet business, which, in our estimation is a step in the right direction. The implications of the idea are intriguing, as well—if two games can fit in one cabinet, why not more?

Mini-Video is a small (22 x 21 x 20 inches) game which weighs only 75 pounds and affords an operator the luxury of changing games at will. Six Gremlin games—*Hustle*, *F-Charge*, *Blasto*, *Head On*, *Head On 2*, and *Deep Scan*—may be installed by sliding out the drawer, which contains all the control panels, sound system and electronics.

Its compact size offers myriad possibilities. Smaller cabinets mean a smaller financial investment for the operator and greater flexibility in locations. The *Mini-Video*, perhaps, can fit in sites that formerly were out of the question because of space limitations.

The game originally was designed for U.S. Navy ships and featured reduced fire hazard and durability, Fogleman said. The idea of commercial, versus military, application came later.

The "games" invasion of Japan was detailed by David Rosen, chairman of the board of Gremlin's parent company, Sega. Although the country formerly was oriented to-

(Continued on page seven)

Antique pinball machines at a new "hands-on" museum in Lansing, Michigan, were played by Charlotte Mackey, far right, Impression 5 museum publicity director. Watching are, left to right, Steve Pierce, Great Lakes Music, Lansing; Walt Maner, MOM executive secretary, Lansing; and Tim Arnold, Pinball Pete's Arcade, Lansing.

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The NAMA 1979 Trade Show attracted nearly 7,800 registrants during the well-attended event held October 25-28 in Chicago.

The National Automatic Merchandising Association (NAMA) convention meetings drew standing room only crowds at Chicago's McCormick Place.

Convention site changed

The 1981 Western Convention-Exhibit of Vending and Foodservice Management will be held in Phoenix from April 3 to 5 instead of San Diego, according to Jack Rielley, director of sales of the National Automatic Merchandising Association (NAMA).

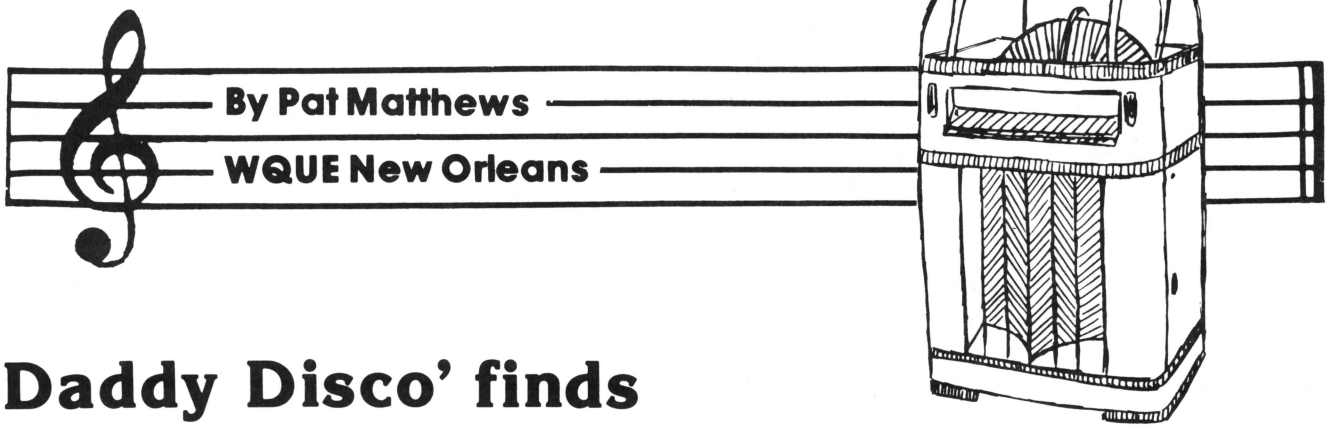
Traditionally held in California, the NAMA Western Show is being rescheduled to Arizona's largest city because the trade show has outgrown the available San Diego exhibit facilities, Rielley said. The Phoenix Civic Plaza Convention Center has larger exhibit and meeting facilities.

Located only one block from the exhibit hall, the two convention hotels, the Adams and Hyatt Regency, are less than five years old and help to make Phoenix an attractive choice, Rielley said.

In a recent survey of exhibitors and convention participants, Phoenix outranked such other cities as Los Angeles, Seattle and Portland.

The 1980 NAMA Western convention will be held in Anaheim, California, from March 14 through 16. The convention usually draws more than 3,000 participants.

MUSIC PROGRAMMING



By Pat Matthews
WQUE New Orleans

'Daddy Disco' finds romance in 'Stargazer'

This time out the hits just keep on coming. So let's roll!

STARGAZER—Peter Brown—Drive DRIX-6281

Talk about records that don't sound like the person it's supposed to be—yes, this is Peter "Dance With Me" Brown but he's totally out of his "father" of Disco role. This is a genuine woman-grabber, a beautiful love ballad with just a taste of rock overtones. No disco, anywhere on this record. In the mold of Barry Manilow, Peter Brown has got a crossover smash on his hands. For an average on all the appropriate charts, this one gets an 8 out of 10 from this corner.

VOLCANO—Jimmy Buffett—MCA MCA 41161

We told you several months ago about "Fins" and it's gratifying to see we were right. Well, this time out it may be another story. The title tune from the successful LP is a reggae number exemplefying the fun Big Buffett radiates even on vinyl. It may sell concert tickets, but I don't know if it will sell records of the singles variety. It's even controversial. There are references to nuclear power (Three Mile Island) and even a slight mention of Ayatollah, written months before any Iranian situation. Since I'm kind I'll give it a 7 out of 10.

I CAN'T HELP MYSELF—Bonnie Pointer—Motown M 1478F

Following the instantaneous success of the Holland Dozier Holland penned "Heaven Must Have Sent You," Bonnie's back with another gem from the Motown library of gold. This one, like its predecessor, is a bouncy danceable tune with vocals, bells and banjo-sounding guitars in the forefront. Should crossover from disco into R&B and pop. This is another big request number that's laced with just enough nostalgia. 9 out of 10.

COLD WIND ACROSS MY HEART—Night—Planet P-45907

Chris Thompson and company is back with a pretty little love song with the already unmistakeable Night sound. It's full of the strong lead vocals of Chris Thompson plus the perfect background harmonies of the group. The tune is produced to a high level of excellence by Richard Perry, who is no stranger to a recording studio. Mass appeal will prove the key here—8 out of 10.

WHEN I WANTED YOU—Barry Manilow—Arista AS 0481

Here we have an excellent can't-miss tune quickly following on the success of "Ships." It's another Gino Cunico composition done by Manilow, the ladies' turntable idol. Remember, he's the guy who wrote "Can't Smile Without You." This one is done in the usual symphonic Manilow style, with lush strings, penetrating horns and the unmistakeable ivory tinklings of the singer himself. MOR and Pop success is guaranteed. 10 out of 10.

CAN WE STILL BE FRIENDS—Robert Palmer—Island IS 49137

Well, I like it. It's the remake of the Todd Rundgren classic with just a slight bit of an upsurge in tempo. With the success of "A Bad Case of Lovin' You," Robert Palmer has shed his mask of cult heroism and seems ready to be a commercial success. At least, I think his bank account will agree with me. This one's familiar, refreshing and the arrangement enjoys a well-needed sprucing up for 1980. I hope everyone enjoys it as much as me. 7 out of 10 or better.

STAR—Earth, Wind & Fire—ARC (Columbia) 1-11165

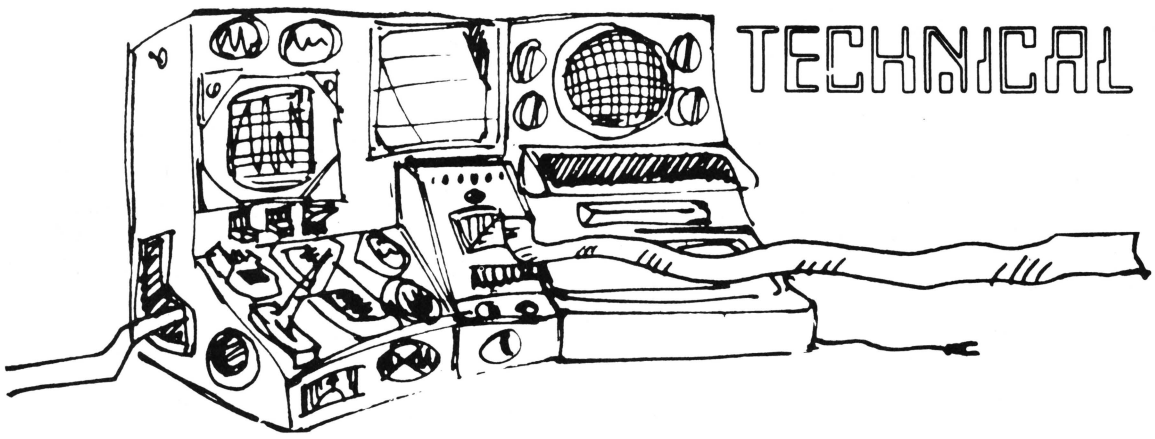
I do believe this will be the right choice this time. Unfortunately, "In The Stone" wasn't. "Star" is the song all the dance schools have included for their upcoming spring reviews. So far, this has been a proven testing ground for danceable classics like "Dance With Me," "The Horse," "Watermelon Man," and on and on, ad infinitum. So there. 9 out of 10 R&B. 7 out of 10 or better Pop.

WONDERLAND—Commodores—Motown M 1479 F

They're back to melt the ladies' hearts again. The strings, lyrics and emotion-filled vocals, of course, are the key. The funky bass off-the-beat rhythm is the perfect accent to another excellently produced chart topper from the prides of Alabama. There's even a synthesizer effect near the end as the "spaceship" departs for Wonderland with only two passengers. Whew! I can feel it, too, baby—10 out of 10 or my grits ain't groceries.

TOO LATE—Journey—Columbia

Here's another group that has gained a more widespread acceptance with only one hit single to their credit. Journey has had several successful albums and in doing so has acquired a following and a "sound." Both should stay in check with station exposure of this blend of driving rock and acoustic several times a day. 7 out of 10 at least.



PIA troubleshooting made easy

If you have had the experience of trouble-shooting an electronic pin CPU board, you have probably encountered the 6821 I.C. This is Motorola's Peripheral Interface Adapter, or PIA. (Note: some earlier PIA's were numbered 6820; their operation is identical.) This formidable-sounding piece of jargon means that this component is used to connect various devices (peripherals) to the MPU.

Figure 1 shows a pinout diagram of the PIA. Do not despair over the many wires emanating from it; if you have been following this series, you know many of them already.

Basically, they break down to the MPU side and the peripheral side. The processor communicates with the PIA over the bi-directional data lines D0-D7 in a manner identical to any other clock connected to the Enable input.

There are also three Chip Selects; two active high, the other active low. All must be in the appropriate state, or the PIA will remain deaf and dumb. The two Register Select inputs connect to A0 and A1 of the Address Bus. These provide a means for the MPU to read and write to the several registers hidden inside the chip.

Finally, there are two Interrupt Request outputs (active low). These are usually tied together and pulled up with a resistor to +5V. When either one goes low, the IRQ input of the MPU is activated. This forces the MPU to stop what it was doing and "service" the PIA—which usually amounts to reading data from it.

Debugging this side of the PIA is like debugging RAM (read/write memory). You have to check for shorts, opens, chip selects that do not happen (or are stuck on), through whatever means you have. Note: the system's self-test, if it has one, can be helpful here.

However, faults on the busses will make the system crazy and unable to execute a self-test routine. You may want to wire in a NOP test circuit in order to force the processor to cycle through all of its addresses. In this state, you should see pulses on all the chip selects as their particular addresses fly by.

The uniqueness of the 6821 is on the peripheral side. The twenty lines break down into two separate and independent sections, A and B; each section has two "control" lines and eight "peripheral" lines.

Have you noticed that I have avoided referring to the peripheral side lines as inputs or outputs? This is because the function of these lines is determined by the circuit designer.

Each of the PA and PB lines can be set as either an input or an output. The CA2 and CB2 lines are also programmable as inputs or outputs. Only the CA1 and CB1 lines are fixed as inputs. The configuration of the 6821 is done by the processor by writing into the hidden registers mentioned earlier. This is generally done once at power-up. Subsequently, the processor limits itself to reading and writing the data registers of the PIA.

When a PA- or PB line is configured as an output, it acts like a latch, i.e., it retains the bit pattern stored in it until the MPU rewrites it. As an input, it acts like a "window" on whatever is connected to it. The "window" is "open" only when the MPU reads the address of the data register inside the PIA. At any other time, the outside world is locked out and does not affect the MPU.

The CA1 and CB1 lines are different. When the MPU enables them—by storing a certain bit pattern inside the PIA—they act as triggers for the IRQA and IRQB outputs, respectively. These outputs interrupt the normal program flow, and are used to either sync the MPU to something (such as a display refresh timer) or to indicate that something happened which requires immediate attention.

The CA2 and CB2 lines differ in subtle ways which are not important here. Basically, though, they can be used either to "acknowledge" and interrupt, by pulsing, or, more commonly, to act as additional latching output bits.

Engineers like the 6821 because it makes it easy to interface a wide variety of devices to the processor. All of the messy latching and bi-directional buffering is taken care of. It also reduces the parts count.

Nice for the engineers, you say, but what about the tech repairing these boards? You do not have access to the program, so you do not even know how the device is supposed to act. Fortunately, there are ways around this situation. As usual, the best repairmen are the

ones who can get the most out of the least information.

The first step is to study the schematic to find out which lines are outputs and which are inputs. Obviously, lines going to the inputs of I.C.'s or to transistor bases are outputs. The ones going to the I.C. inputs should have a healthy TTL voltage swing; those feeding transistors may not necessarily be near +5V or ground; this is because transistors are driven by current flow rather than voltage changes.

Lines connecting to switches may be inputs; however, be careful. The designer may be "scanning" the switches with pulsed outputs and sensing them elsewhere. If you have a known good board, you are ahead of the game, because you can observe what is going on.

The CA and CB lines can be tricky. As mentioned below, the CA1 and CB1 lines are inputs used to generate interrupts to the processor. They are edge-triggered, like a flip-flop; but which edge is active is another one of the variables under the designer's control. When the edge happens, the IRQ line is pulled low until the processor unhooks it by reading the PIA.

However, the program can "mask" the effect of the CA and CB lines, so do not jump to conclusions yet—check a good board if you see transitions on these inputs with no IRQ output.

Also, if there is a short or very low resistance path to +5 on the IRQ line, the PIA (and any other chip) would not have the stuff to pull it down. So check for shorts if IRQ is stuck high. If it is stuck low, you can have either a short, or a processor which is too confused to clear its interrupts.

Start by depressing the reset switch, or grounding the processor's reset input. This should raise the IRQ if the problem is not a short (or a dead device on the line). If IRQ remains stuck, disconnect the PIA IRQ outputs from the rest of the string and try the reset again. If this does not cause it to come up, you have got a bad PIA (or, you also disconnected its pullup resistor).

Remember, anything that is tied to an IRQ line has to have a resistor to +5, or else it will never show a high.

Figure 2 shows some typical input and output circuits to get you started on your detective work. The "Box" discusses a common application of the PIA—scanning a switch matrix. As you can see, the 6821 has a lot of legs, but it is basically friendly.

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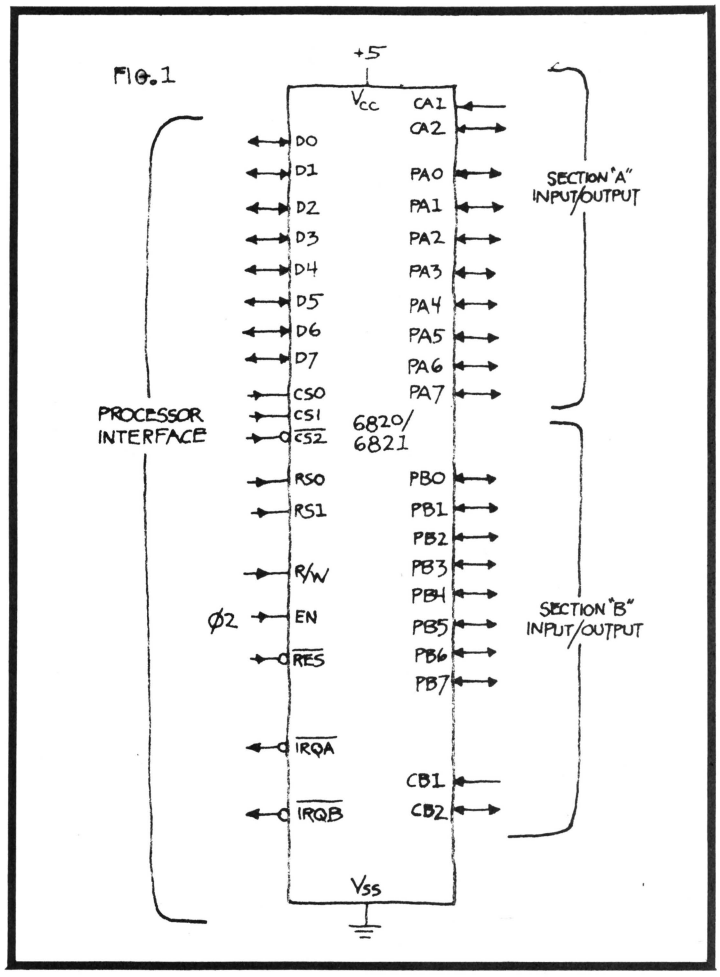

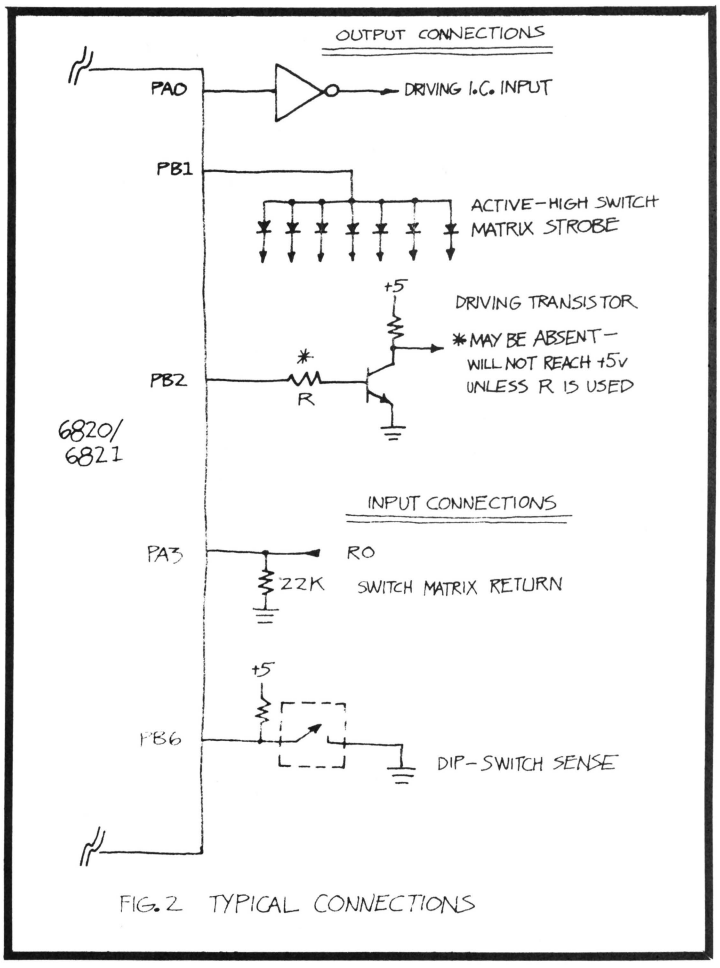

FIG. 2 TYPICAL CONNECTIONS

8-ball tourney set for June 4-8

The Billiard Congress of America is sponsoring the second annual All-American Eight-Ball League championship to be held June 4-8, 1980, at the Four Seasons Motor Inn, Colorado Springs, Colorado.

Robert Goodwin, managing director of the BCA, told PLAY METER that "the event will run in conjunction with a nine-ball tournament sponsored by the Colorado Pool League, which means that the tables will be going almost 24 hours a day. Also, there'll be a 'trick-shot' tournament which will pit the nine-ball winners against the eight-ball winners."

Openings for the eight-ball tourney are set aside for 32 mens teams and sixteen womens. Selection of the teams will be determined by the tournament committee based on the size of the league, location of the league, and previous participation.

Leagues with less than 120 participating men or less than 60 women must apply to BCA at 717 North Michigan Avenue, Chicago, Illinois 60611 by mid-January. The entry fee per team is $50 which will be returned in the event the league is not selected. There also is a $2.50 per player fee.

Applications must state the total number of teams and players in it; the numbers that wish to participate; and the geographical area represented.

If accepted, each league must submit a list of participating team names and players on each team. Those not properly listed will be prohibited from playing in the championship; however, player substitutions may be made up until February 15, 1980.

The required $2.50 entry fee per player entitles the entrant to a commemorative A-A patch and identification card, newsletters reporting on the progress of tournament plans, and a personal set of playing rules. The fee provides funds to pay for the tournament site, prizes, trophies, referees, and programs.

Organization officials note that leagues sometimes may be refused after they are accepted. The applicable situations might be if a league fails to remit the player entry fees within thirty days of being accepted; failure to supply the names of the participating teams and players; failure to submit records of a team's participation in regular season play if that information is requested by the tournament committee; or falsification of application information.

More than one league from any given area also may participate. The tournament committee, however, will make certain that the final selection is representative of the game and its decision is final.

The All-American is played with five person teams which may have up to three alternates. Leagues with less than five persons may combine the first two teams for purposes of entering the All-American, but all players on the team must have played winning teams during the regular season. Teams made up of "all stars" will not be permitted to enter the tournament.

The "double elimination" system will govern championship play. In other words, a team must lose two matches to be eliminated. A match consists of five players playing five opponents, with each contestant playing his opponent three times.

Scoring is based on the winner of a game receiving three points for pocketing the eight-ball legally and one point for each ball left on the table by his opponent. The total team score at the end of the fifteen games determines the winning team in the match. There is no handicap play.

Tables used in the tournament are supplied by the Valley Company of Bay City, Michigan, and installation will be handled by the local Colorado Springs representative of Valley.

Prizes consist of trophies, including one commemorative plaque for each contestant. In addition, the champions will receive custom-made signature cues from Huebler Industries of Linn, Missouri.

Each player on the winning team also will receive a "champions" handsewn gold bullion patch. Also, the sponsors of the winning team will receive trophies for permanent display in their club.

Tournament officials are as follows:

Gary Benson, tournament director, has been employed at D&R Star for the past eleven years, where he is shop superintendent. He has served as tournament director for both the D&R singles and invitational team tournaments every year since 1974.

Jim Wilhem, now BCA president, took over the executive vice presidency last year from Darrell Lawless of the Valley Company, who left without completing his term. Wilhem is president of the Saunier-Wilhem Company of Pittsburgh, Pennsylvania, a distributor and retailer of billiard and bowling equipment.

Robert Goodwin, BCA managing director, is responsible for the administration of the congress and works with the All-American tournament committee in arranging playing facilities, exhibits, and housing for the contestants.

Jerry Leeper, and Bill Nemgar, who comprise the tournament committee, were the originators of the All-American concept, each approaching BCA separately with the same idea.

In addition, John Evers of the Colorado Springs Billiard League was instrumental in finalizing the concept that slated the 1980 championships in his home town.

The Colorado Springs Pool League, whose president is John Evers, is hosting the event.

calendar

January 17-19
German Coin Machines Manufacturers (VDAI), exhibition grounds, Frankfort, Germany

January 18-20
Music Operators of Minnesota, Minneapolis, Minnesota

January 25-26
Oregon Amusement & Music Operators Association, Jantzen Beach, Portland, Oregon

March 14-16
Western Convention-Exhibit of Vending and Foodservice Management, Anaheim Convention Center, Anaheim, California

March 20-22
Amusement Operators Expo., Fairmont Hotel, New Orleans

May 16-17
Ohio Music and Amusement Association Exposition of Games and Music, Columbus, Ohio

May 16-18
Music and Amusement Association annual convention, Host Farm, Lancaster, Pennsylvania

June 5-7
Music Operators of Texas, El Paso, Texas

July 16-20
National Australian AMOA, Queensland, Australia

(Continued from page one)

ward arcades, the Sega-Gremlin merger which took place a year ago has signalled "dramatic and exciting" changes in the small populous island.

"We have opened up new locations that previously were unattainable," Rosen said. And Sega Corporation's Japanese subsidiary, Sega Entertainment Limited, the country's largest manufacturer, distributor, and operator, certainly helped make the success possible mainly by tailoring its products to the market.

"Japan is not a strong flipper market," he pointed out. "However, the Japanese have taken to television games primarily in the cocktail table format—probably their answer to flipper games as far as locations are concerned."

The Japanese, therefore, gave the customer what he or she wanted. "The main catalyst was the ability of Japan's manufacturers, distributors, and operators to develop a table—specifically, cocktail—to fit the ambience and environment of the normal Japanese location."

Important in Sega's success, according to Rosen, was the increased skill factor that their games offered. "We call it the advent of the 'multiphase' machine because it allows the player more than the strictly novelty end of play. Skill factors build up. A prime example of this is *Head On*, whereby as the player completes the first phase, beating a single computer car, the second phase appears on the screen. Should he beat that, a third phase appears where he's playing against three cars. A player could, in theory, play the game indefinitely."

"Consequently, the game is purely skill with virtually no luck features. The player develops a certain pride as well as sustaining interest," he said. "We've also put 'multiphase' in standard television uprights such as those that are found in a typical U.S. arcade."

Sega's triumphs in Japan, of course, come from careful marketing research and product implementation. But could it work in the U.S.?

"I feel it's important that efforts be made in the U.S. to determine what is going to be necessary to open up locations not currently available to us," Rosen said. "By this, I mean there's going to be a departure in cabinet configurations which are considered standard to date. For example, most of our games are made in conventional upright design. Certainly that may be very suitable for present needs but we're going to require different cabinets if we want to reach other locations."

"I think the American market has been slow to respond to potential needs," he said. "The foreign market place, probably because it is not as mature or they don't have the long traditions, has been more responsive and adventurous in trying to approach the problem. Although I don't have exact statistics, we estimate that less than ten percent of the American population has had the opportunity to play a coin-operated game machine."

"Probably three years ago," Rosen continued, "the same ratio would have been true in Japan, but we were able to deliver machines to locations such as coffee shops where formerly there was no exposure. We now estimate that we've reached about thirty to fifty percent of the population."

The point—Sega brought the machines to the consumer, a bonus of which was greater exposure to more age groups and, of course, an expanded market. "The Japanese market is no longer dominated by youth. Average players there are in their twenties while in America, they usually are in their teens."

Professionals, a group which traditionally has had little exposure in the Japanese market, now are seen in increasing numbers depositing those coins.

"And certainly we've crossed the sex barrier. Female play in Japan now is every bit as common as male," Rosen noted with some satisfaction.

Marita Keddeinis, export manager for Gremlin, addressed herself to the problem of copyrights.

"As we have done in the past, we'll continue to use the rights available to us under the copyright law to protect our games. These rights afford us, or any game manufacturer, for that matter, the exclusive right to make and to authorize the making of copies of an original work or authorship, to prepare derivative work based on copyrighted work, and to distribute copies of the work to the public."

"Most games manufacturers spend large amounts of money to develop new games," she continued, "and if others do not respect the rights of the manufacturers, the innovativeness of research and development will be curtailed."

"Where situations warrant it, Sega and Gremlin intend to continue to pursue infringers of our copyrights to allow us to concentrate our efforts on new and better products and on full market testing before we go into production," Keddeinis emphasized.

Portale to distribute Gottlieb products

A new distributor, Portale Automatic Sales, has joined the D. Gottlieb and Company family in northern California, Thomas L. Herrick, the company's marketing vice president reported recently.

Jerry Monday, general manager for the distributorship in San Francisco, has outlined ambitious plans for an expansion of the company's marketing program in the northern part of the state supplemented with increased promotion, publicity and advertising.

Bert Betti, chairman of Portale Automatic Sales, said "we are both pleased and honored to be representing Gottlieb and are confident that our market penetration in California will continue its rapid expansion through the efforts of Jerry Monday and his staff."

Peter Betti is president of Portale Automatic in Los Angeles.

ADI changes hands

As of September 17, 1979, the A.D.I. "pool table company" has changed hands. Originally owned by Art Daddis, the new principals in the organization consist of Rich Carr, president, and Bruce Hosch, vice president.

A.D.I. has just acquired more manufacturing space in Clearwater, Florida, and is now keying up for national distribution.

Future plans for A.D.I. include the manufacture of different games for the coin operated industry, the nature of which can't be disclosed at this time.

OMAA 1980 expo slated May 16-17

The Ohio Music and Amusement Association's (OMAA) 1980 Annual Exposition and Convention will be held May 16-18 at the Columbus Hilton Inn, 3110 Olentangy River Road, Columbus, Ohio 43202.

OMAA President Dennis R. Hilligan announced the appointment of the following 1980 Exposition and Convention Committee: chairman, Tommy Thompson, Tora Music, Columbus; James H. Hayes, Gem Music, Dayton; and Larry Van Brackel, A. Van Brackel & Sons, Defiance. The coordinator for the meeting will be Paul A. Corey.

Additional information will be forthcoming as the committee develops its plans.

classified

FOR SALE: Air Ace, Big Valley, Jungle, Jackpot, Jack-in-the-Box, King Rock, Rogo, 5-in-1 Elcon, 21 Black Jack, Sparetime, Amigo, Tic-Tac-Toe, Space Riders, Butterfly, Jubilee, Marstrek, Roy Clark [The Entertainer]. NORTH AMERICAN INTERSTATE, INC., 3842 W. 11 Mile Rd., Berkley, MI 48072. Tel. 313/543-1666.

FOR SALE: Video arcade games: Atari's Tank Battle was $1595 now $900; Ramtek's Barricade 25-cents-50-cents was $925 sacrifice $700. Write or call DAVID A. HOLCOMB, 3830 North Shelby Ln., Douglasville, GA 30135. Tel. 404/942-0549.

COLLECTOR OF OLD COIN OPERATED MACHINES wants old and unusual slot and arcade machines. Please call ROGER 312/849-4041.

TEN ROWE 27-100 CIGARETTE VENDORS. All complete and functional. All with $1 accumulators. Several with 100 mm conversions. $50 each or make offer. MONTROSE MUSIC COMPANY, P.O.Box 1623, Montrose, CO 81401.

WANTED: Manuals, prints on parts books on slot machines. Would appreciate anything you could offer. Please contact C.E. SPITAL, JR., 3430 Maple St., Harrisburg, PA 17109.

ANTIQUE SLOT MACHINE BOOKS, MANUALS, price guide, posters, etc. Also for automatic music, arcade, etc. Get on our mailing list. COIN SLOT, Box 61V, Wheatridge, CO 80033. Tel. 303/234-0695.

FOR SALE: Atari Ultra Tank, Star Ship I, Cinematronics Space Wars, Brunswick Air Hockey. Good condition. Priced Right. Call NEWMARK ENT., Eugene, OR. Tel. 503/484-6029.

FOR SALE: New Red, Blue, Yellow, and Green Sunburst 10 pt. when lite caps used on 1960-72 pinball games. DON MURPHY, 2015 N. Kolmar Ave., Chicago, IL. Tel 312/235-3360.

WANTED: Playboy, Kiss, Space Invader, Superman, Lost World, Fire Ball. NOVEL PINBALL CO., 593 10th Ave., New York City, NY. Tel. 212/736-3868.

SERVICE MAN: 23-year-old male experienced in S.S. and electromechanical pinballs, video games, juke-boxes, and sound reinforcement looking for work with organized company. Salary negotiable, willing to relocate. Call DARRELL at 515/279-7061 or 515/243-0794.

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